
Subject: Re: [PATCH 02/11] memcg: Reclaim when more than one page needed.
Posted by [David Rientjes](#) on Tue, 26 Jun 2012 04:09:11 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Mon, 25 Jun 2012, Glauber Costa wrote:

```
> diff --git a/mm/memcontrol.c b/mm/memcontrol.c
> index 9304db2..8e601e8 100644
> --- a/mm/memcontrol.c
> +++ b/mm/memcontrol.c
> @@ -2158,8 +2158,16 @@ enum {
>  CHARGE_OOM_DIE, /* the current is killed because of OOM */
> };
>
> +/*
> + * We need a number that is small enough to be likely to have been
> + * reclaimed even under pressure, but not too big to trigger unnecessary
```

Whitespace.

```
> + * retries
> + */
> +#define NR_PAGES_TO_RETRY 2
> +
```

Should be $1 \ll \text{PAGE_ALLOC_COSTLY_ORDER}$? Where does this number come from?
The changelog doesn't specify.

```
> static int mem_cgroup_do_charge(struct mem_cgroup *memcg, gfp_t gfp_mask,
> - unsigned int nr_pages, bool oom_check)
> + unsigned int nr_pages, unsigned int min_pages,
> + bool oom_check)
> {
>  unsigned long csize = nr_pages * PAGE_SIZE;
>  struct mem_cgroup *mem_over_limit;
> @@ -2182,18 +2190,18 @@ static int mem_cgroup_do_charge(struct mem_cgroup *memcg,
>  gfp_t gfp_mask,
>  } else
>  mem_over_limit = mem_cgroup_from_res_counter(fail_res, res);
>  /*
>  - * nr_pages can be either a huge page (HPAGE_PMD_NR), a batch
>  - * of regular pages (CHARGE_BATCH), or a single regular page (1).
>  - *
>  - * Never reclaim on behalf of optional batching, retry with a
>  - * single page instead.
>  - */
>  - if (nr_pages == CHARGE_BATCH)
>  + if (nr_pages > min_pages)
```

```

> return CHARGE_RETRY;
>
> if (!(gfp_mask & __GFP_WAIT))
> return CHARGE_WOULDBLOCK;
>
> + if (gfp_mask & __GFP_NORETRY)
> + return CHARGE_NOMEM;
> +
> ret = mem_cgroup_reclaim(mem_over_limit, gfp_mask, flags);
> if (mem_cgroup_margin(mem_over_limit) >= nr_pages)
> return CHARGE_RETRY;
> @@ -2206,7 +2214,7 @@ static int mem_cgroup_do_charge(struct mem_cgroup *memcg,
gfp_t gfp_mask,
> * unlikely to succeed so close to the limit, and we fall back
> * to regular pages anyway in case of failure.
> */
> - if (nr_pages == 1 && ret)
> + if (nr_pages <= NR_PAGES_TO_RETRY && ret)
> return CHARGE_RETRY;
>
> /*
> @@ -2341,7 +2349,8 @@ again:
> nr_oom_retries = MEM_CGROUP_RECLAIM_RETRIES;
> }
>
> - ret = mem_cgroup_do_charge(memcg, gfp_mask, batch, oom_check);
> + ret = mem_cgroup_do_charge(memcg, gfp_mask, batch, nr_pages,
> + oom_check);
> switch (ret) {
> case CHARGE_OK:
> break;

```
